

# Rapidur 3344

HS6-5-3

C 1,22 Cr 4,10 Mo 5,00 V 2,90 W 6,40

**Steel properties** Very similar composition to Rapidur 3343, but with substantially higher V and C content, resulting in combined maximum wear resistance and cutting edge retention with good toughness.

**Standards** AISI M3 Typ 2

AFNOR Z120WDCV06-05-04-03

**Applications** Taps, reamers, heavy-duty milling cutters, dies, rotary gear shaping and shaving cutters for the processing of hard materials, hexagon socket punches and piercing dies for the nut production.

**Heat treatment** **Soft annealing °C**  
820 – 860

**Cooling**  
Furnace

**Hardness HB**  
max. 269

**Stress-relief annealing °C**  
630 – 650

**Cooling**  
Furnace

1st pre-heating °C	2nd and 3rd pre-heating °C	Hardening <sup>1</sup> °C	Quenching	Tempering °C	Hardness after tempering HRC
up to approx. 400 in an air-circulating furnace	a) 850  b) 850 and 1050	1190 – 1230	a) Saltbath, 550 °C b) Oil c) Air	at least three times 540 – 570	64 – 66

<sup>1</sup> For cold-forming tools with a complex geometry, a hardening temperature at the lower end of the quoted range is recommended. The stated hardening temperatures apply to saltbath hardening only. For vacuum hardening, we suggest a reduction of 10 °C to 30 °C.